

Name _____ Date _____ Hour _____

Module 1 Test Review

1:1:1 Problem-Solving

1) Trendel's Treasures Pet Shoppe has 12 dogs and cats. Each dog is fed 5 oz. of pet chow per meal and each cat is fed 3 oz. It takes 42 oz. of pet chow to feed all 12 animals one meal. How many dogs are there? (2pts.)

1:1:2 Using Rates (2 pts. Each)

Write a unit rate.

2) \$14.65 for 3 pounds

3) 225 miles in 5 hours

Complete each equation.

4) 111 gal./min. = _____ gal./hr.

5) \$20.39/lb. = \$_____/oz.

1:2:1 Stem and Leaf Plots

Use the Stem and Leaf Plot to answer questions 6 through 9.

Ages of NFL Quarterbacks in 2007-2008

| | |
|---|-----------------------------------|
| 2 | 2 3 3 4 4 4 5 6 7 7 8 8 9 9 9 |
| 3 | 0 0 1 1 2 2 2 4 4 4 4 5 6 6 7 8 9 |

$$2 \mid 2 = 22$$

6) Find the mean of the ages. (1 pt.)

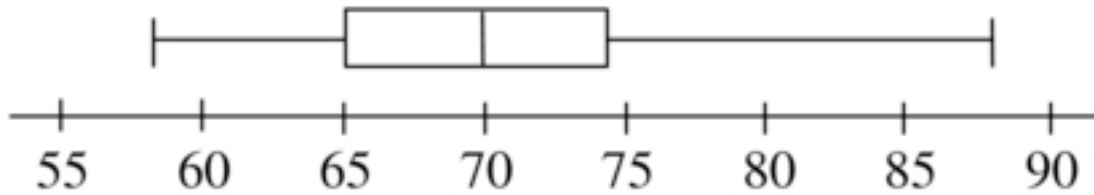
7) Find the median of the ages. (1 pt.)

8) Find the mode of the ages. (1 pt.)

9) What does the shape of the Stem and Leaf Plot tell you about the ages of the NFL Quarterbacks in 2007-2008? (2 pts.)

1:2:2 Box and Whisker Plots

Use the box and whisker plot to answer the name the following: (1 point each).



10) Median

11) Lower quartile

12) Upper extreme

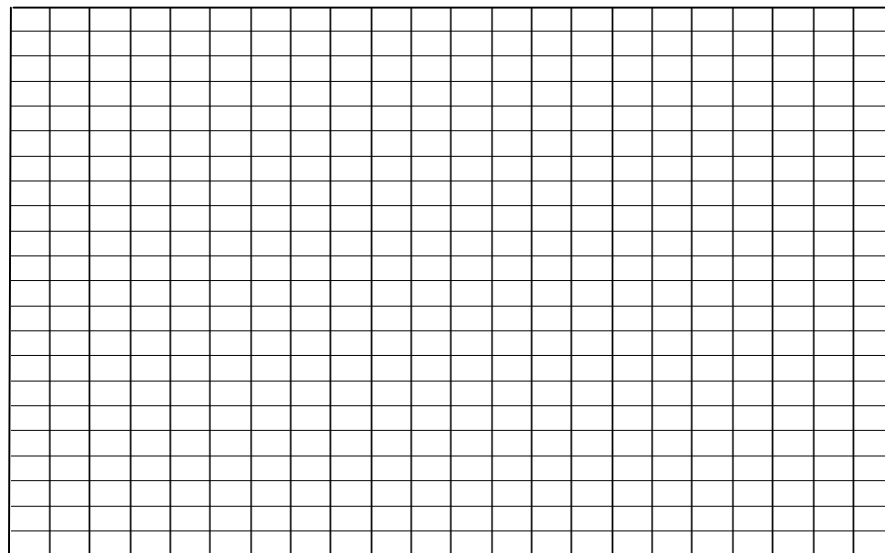
13) Lower extreme

14) Upper quartile

1:3:1 & 1:3:2 Making a Scatter Plot and Fitting a Line (7 pts.)

Mrs. Koenig owns Koenig's Kakes and Treats. She is trying to decide how much hot chocolate to make each day. Mrs. Koenig records the high temperatures and the hot chocolate sales each day for two weeks.

| High Temp. | 77 | 72 | 75 | 95 | 71 | 68 | 69 | 65 | 64 | 60 | 55 | 58 | 54 | 51 |
|-------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Cups of H.C. Sold | 6 | 6 | 4 | 1 | 5 | 9 | 11 | 14 | 15 | 18 | 25 | 21 | 28 | 31 |



15) Use the data above to make a scatter plot. Put High Temperature on the horizontal axis.

16) If a line seems to fit the data, draw it (with a ruler). (1 pt.)

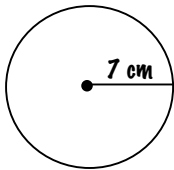
17) Use your graph too predict how much Hot Chocolate Mrs. Koenig should make if the high temperature is 88 degrees. (2 pts.)

18) What does the pattern of the data points tell you about the sale of hot chocolate? (1 pt.)

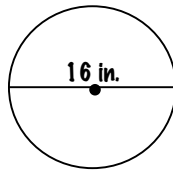
1:4:1 Finding Circumference & Writing /Evaluating Expressions (4 pts. Each)

Find the circumference for each circle. *Round answers to the nearest HUNDREDTH and use the π key if necessary!*

19)



20)



Evaluate each expression. *Round answers to the nearest HUNDREDTH and use the π key if necessary!* (2 pts. Each)

21) $2\pi r$ when $r = 12$

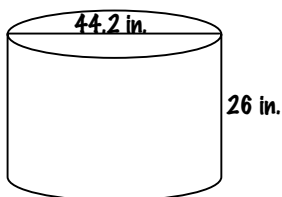
22) $x^3 + 3$ when $x = 2$

23) $\frac{4w + 2}{2^2 + 3}$ when $w = 3$

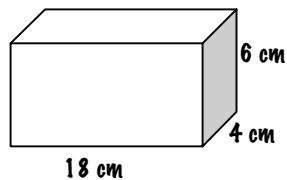
1:4:2 Finding Volume (4 pts. Each)

Find the volume for each. *Round answers to the nearest HUNDREDTH and use the π key if necessary!*

24)



25)



1:5:1 Writing Equations (2 pts. Each)

Rewrite each statement as a mathematical equation. Tell what each variable represents.

26) The total cost for a family to go to Orbit World is \$15 for each adult and \$10 for each child.

27) A salesperson's salary is \$300 plus 5 times the number of widgets sold.

1:5:2 Solving Equations (3 pts. Each)

Use inverse operations to solve each equation.

28) $\frac{m}{4} + 7 = 35$

29) $3d - 2 = 91$

30) $8 + 4n = 88$

31) $6 + \frac{k}{9} = 60$

1:5:3 Simplifying Expressions (2 pts. Each)

If possible, combine like terms to simplify.

32) $y + y^2 + 3y$

33) $5 + r + 7 + 3r$

34) $j + 7j + 16 - 5j$

35) $7p + 8r - 6pr$

36) $12 + 6w - 2w + w^2$

37) $13 + 22m + 5 - 8$